



DEC 16 2003

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11. 510(k) Summary

This 510(k) summary of safety and effectiveness is being submitted in accordance with the requirements of CFR 807.92.

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Email: hbailin@axonsystems.com
Proprietary Name: EpochXP Neurological Workstation
Common Name: EpochXP Lite Neurological Workstation
 Electroencephalograph (EEG Monitor), Evoked Potential (SEP, BAEP, AEP, VEP, MEP) System, EMG Monitor
Classification Name: Electroencephalograph, Evoked Response, Electromyograph
Classification: Class II (Performance Standards)
 Panels: Neurology, Anesthesiology
 Number: 882.1400 Electroencephalograph
 882.1420 Electroencephalograph (EEG)
 Signal Spectrum Analyzer
 Electromyograph Monitor
 Stimulator, Electrical, Evoked Response
 Stimulator, Photic, Evoked Response
 Stimulator, Sonic, Evoked Response
 Procodes: GWQ, GWS, GWF, GWE, GWJ, CAB
Predicate Devices EpochXP (K022785)
 Digitimer D185 (K020400)

AXON

S Y S T E M S

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Description:

The EpochXP Neurological Workstation provides continuous monitoring of brain and neural pathways intraoperatively or in the intensive care unit. The system has been designed to meet the demanding requirements for comprehensive neurological monitoring in the electrically hostile operating room and critical care environments.

The EpochXP can be used to monitor neurological data using either individual or multimodality EEG, EMG and evoked potential test protocols. The main EpochXP system components include: CPU, interface enclosure, data acquisition module, sensory and motor electrical stimulator, stimulator extension boxes, LED goggles and insert earphones.

Recording electrodes, placed on the patient, are connected to the digital preamplifier (data acquisition module). The signal is amplified, filtered, optically isolated and converted to a digital signal. The digitized data is then routed to the digital signal processing (DSP) board located in the interface enclosure. The DSP processes the data and controls timing for the stimulators. The CPU acts as the user interface for setting parameters and controls and for display of the processed data.

Data from external devices, such as vital signs monitors, can be imported to the EpochXP display screen, allowing the operator to correlate changes in neurologic function with the patient's systemic vital signs. In addition, a display window may be opened to observe the surgeon's microscope view on screen. The EpochXP is network compatible for data review within the hospital and permits secure information access over the Internet.



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**Indications for
Use:**

The EpochXP is intended for use in the operating room and critical care areas for neurological monitoring and assessment. The instrument uses EEG, evoked potentials and EMG techniques to provide health care professionals with information to help assess a patient's neurological status during surgery or long term monitoring in the ICU.

Based on the clinical data and technical information provided in this 510(k) and the safety and effectiveness criteria of the design and development process, validated and verified, we claim the EpochXP (EpochXP Lite) Neurological Workstation to be safe, effective and substantially equivalent to the predicate device noted.

The EpochXP with added motor evoked potential stimulation is similar in concept and function to the legally marked devices, EpochXP (K022785) and Digitimer D185 (K020400), class II devices.

The addition of transcranial motor evoked potential stimulation modality incorporated in this product is designed to meet the current and expanding demands of health care professionals for more effective neurological monitoring without compromising safety or effectiveness.



Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

DEC 16 2003

Mr. Howard Bailin
Vice President
Axon Systems, Inc.
400-2200 Oser Avenue
Hauppauge, New York 11788

Re: K032741

Trade/Device Name: EpochXP Neurological Monitor

Regulation Number: 21 CFR 882.1400; 21 CFR 882.1870; 21 CFR 882.1890;
21 CFR 882.1900

Regulation Name: Electroencephalograph; Evoked response electrical stimulator; Evoked
response photic stimulator; Evoked response auditory stimulator

Regulatory Class: II

Product Code: GWQ, GWF, GWE, GWJ

Dated: November 17, 2003

Received: November 18, 2003

Dear Mr. Bailin:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4659. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,


for Celia M. Witten, Ph.D., M.D.

Director

Division of General, Restorative
and Neurological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

Indications for Use Statement

510(k) Number K032741

Device Name EpochXP Neurological Monitor

Indications for Use

The EpochXP Neurological Monitor is intended for use in the operating room and critical care areas for neurological monitoring and assessment. The instrument uses EEG, evoked potentials and EMG techniques to provide health care professionals with information to help assess a patient's neurological status and guide treatment during surgery or long term monitoring in the ICU

Miriam C. Provost
(Division Sign-Off)
Division of General, Restorative
and Neurological Devices

510(k) Number K032741

Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use
(21 CFR 807 Subpart C)